

## Patent Abstracts of Japan

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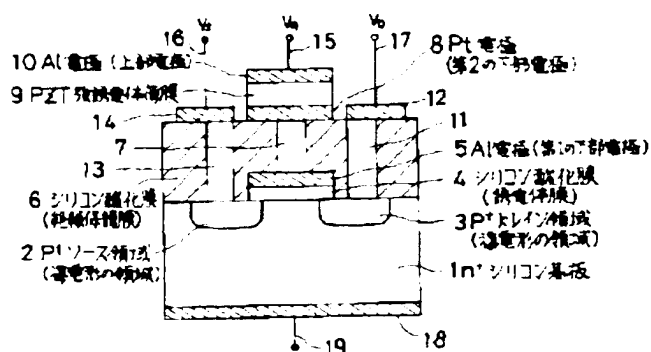
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TITLE : FERROELECTRIC STORAGE  
ELEMENT



ABSTRACT : PURPOSE: To provide an element which assures stability of movement, remarkable yield improvement, and low cost by preventing diffusion of impurities from a ferroelectric thin film to the surface of a semiconductor.

CONSTITUTION: Two regions 2, 3, which have conductive form opposite to that of a substrate 1, are formed with a gap in a position sufficiently close to the surface layer of the substrate composed of bulk semiconductor materials having conductive form opposite to that of two regions. A dielectric film 4 is formed on the surface of the substrate 1 in such way that the dielectric film bridges over these two regions 2, 3. Then, a first lower-part electrode 5 is formed on the dielectric film 4, and an insulating protection film 6 is formed in such way that the film covers the substrate 1, the conductive form regions 2, 3, the dielectric film 4, and the first lower-part electrode 5. Then a second lower-part electrode 8 electrically contacted with the first lower part electrode 5 is formed on the first lower-part electrode 5 through the insulating protection film 6, a ferroelectric thin film 9 is formed on the second lower-part electrode 8, and an upper-part electrode 10 is formed on the ferroelectric thin film 9. As a result, a ferroelectric storage element is obtained.

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